

Appl. No. 10/045,673
Response dated: March 31, 2005
Reply to Office Action of December 14, 2004

Amendments to the Claims:

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-8 (canceled)

9. (previously presented) A method for increasing bone density in a mammalian subject in need of the same comprising: administering to the mammalian subject a therapeutically effective amount of activated vitamin D binding protein (ADBP).

10. (original) The method of claim 9 wherein the ADBP comprises a galactosamine attached to a threonine or a serine located in domain III.

11. (previously presented) A method for increasing bone density in a mammalian subject in need of the same, comprising administering to the mammalian subject a therapeutically effective amount of one or more peptides selected from a peptide that is 3 amino acids in length and comprises the first 3 consecutive amino acids of SEQ ID NO. 1, a peptide that is 4 amino acids in length and comprises the first 4 consecutive amino acids of SEQ ID NO. 1, a peptide that is 5 amino acids in length and comprises the first 5 consecutive amino acids of SEQ ID NO. 1, a peptide that is 6 amino acids in length and comprises the first 6 consecutive amino acids of SEQ ID NO. 1, a peptide that is 7 amino acids in length and comprises the first 7 consecutive amino acids of SEQ ID NO. 1, a peptide that is 8 amino acids in length and comprises the first 8 consecutive amino acids of SEQ ID NO. 1, a peptide that is 10 amino acids in length and comprises the first 10 consecutive amino acids of SEQ ID NO. 1, a peptide that is 11 amino acids in length and comprises the first 11 consecutive amino acids of SEQ ID NO. 1, a peptide that is 12 amino acids in length and comprises the first 12 consecutive amino acids of SEQ ID NO. 1, a peptide that is 13 amino acids in length and comprises the first 13 consecutive amino acids of SEQ ID NO. 1, and a peptide that is 14 amino acids in length and comprises the amino acid sequence of SEQ ID NO. 1.

12. (previously presented) The method of claim 11 wherein the peptide lacks a sugar moiety.

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13. (previously presented) The method of claim 11 wherein the peptide comprises a sugar residue attached to the threonine residue at position 3 of the peptide.

14. (original) The method of claim 13 wherein the sugar residue is an N-acetylgalactosamine.

15. (previously presented) The method of claim 11, wherein at least one of the one or more peptides is 10 amino acids in length and comprises the first 10 consecutive amino acids of SEQ ID NO. 1.

16. (previously presented) The method of claim 11, wherein at least one of the one or more peptides is four amino acids in length and comprises the first 4 consecutive amino acids of SEQ ID NO. 1.

17. (previously presented) The method of claim 9, wherein ADBP is administered by systemic injection.

18. (previously presented) The method of claim 9, wherein ADBP is administered by local injection or infusion.

19. (previously presented) The method of claim 9, wherein ADBP is administered at least twice during a four day period.

20. (previously presented) The method of claim 9, wherein ADBP is administered orally.

21. (canceled)

22. (not entered) The method of claim 11, wherein the one or more peptides are administered by systemic injection.

23. (not entered) The method of claim 11, wherein the one or more peptides are administered by local injection or infusion.

24. (not entered) The method of claim 11, wherein the one or more peptides are administered at least twice during a four day period.

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25. (not entered) The method of claim 11, wherein the one or more peptides are administered orally.

26. (not entered) The method of claim 11, wherein the one or more peptides are administered in combination with ADBP.

27. (not entered) The method of claim 11, wherein at least one of the one or more peptides is 12 amino acids in length and comprises the first 12 consecutive amino acids of SEQ ID NO. 1.

28. (not entered) The method of claim 11, wherein at least one of the one or more peptides is 11 amino acids in length and comprises the first 11 consecutive amino acids of SEQ ID NO. 1.

29. (not entered) The method of claim 11, wherein at least one of the one or more peptides is 14 amino acids in length and comprises the amino acid sequence of SEQ ID NO. 1.

30. (not entered) A method of treating a mammalian subject with a disease or disorder involving bone loss comprising:

administering to the subject a therapeutically effective amount of one or more peptides selected from a peptide that is 4 amino acids in length and comprises the first 4 consecutive amino acids of SEQ ID NO. 1, a peptide that is 5 amino acids in length and comprises the first 5 consecutive amino acids of SEQ ID NO. 1, a peptide that is 6 amino acids in length and comprises the first 6 consecutive amino acids of SEQ ID NO. 1, a peptide that is 7 amino acids in length and comprises the first 7 consecutive amino acids of SEQ ID NO. 1, a peptide that is 8 amino acids in length and comprises the first 8 consecutive amino acids of SEQ ID NO. 1, a peptide that is 10 amino acids in length and comprises the first 10 consecutive amino acids of SEQ ID NO. 1, a peptide that is 11 amino acids in length and comprises the first 11 consecutive amino acids of SEQ ID NO. 1, a peptide that is 12 amino acids in length and comprises the first 12 consecutive amino acids of SEQ ID NO. 1, a peptide that is 13 amino acids in length and comprises the first 13 consecutive amino acids of SEQ ID NO. 13, and a peptide that is 14 amino acids in length and comprises the amino acid sequence of SEQ ID NO. 1.

31. (not entered) The method of claim 30, wherein the subject has osteoporosis.

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32. (not entered) The method of claim 30, wherein the subject has osteogenesis imperfecta.
33. (not entered) The method of claim 30 wherein the subject has a spine injury.
34. (not entered) The method of claim 30, wherein the subject has periodontal disease.
35. (not entered) The method of claim 30, wherein the subject has an osteopenia.
36. (not entered/amended) The method of claim 30, wherein the subject has a bone fracture.
37. (not entered/amended) The method of claim 30, wherein the subject has bone necrosis.
38. (not entered) The method of claim 30, wherein the one or more peptides are administered systemically.
39. (not entered) The method of claim 30, wherein the one or more peptides are administered locally.
40. (not entered) The method of claim 30, wherein the one or more peptides are administered orally.